

BAB IV

RESEARCH FINDING AND DISCUSSION

This chapter focuses on presenting the data of the reserch. Three main topics are presented in this part covering descriptions of data, hypothesis testing and discussion.

A. The Description of Data

This research was done at 4-14 Mei 2016 in 6 meeting with 45 minutes for each meeting. In this research, the researcher also took some photos during the reserch process in order to complete one of research procedures.

In this section, the writer presents students' score in reading comprehension instruction before and after being taught by using e-reading tools. As it was stated in the previous chapter, tests were used as instrument in collecting data. The tests were given to ten grade in C class of MA Terpadu Al Anwar as a single group, as control and expermental group. The test was reading test in the form of multiple choices. Then researcher presented and analysed the data taken from pre-test and post-test. The collected data were presented in the form of table that covered the pre-test and post-test score of a single group.

1. Data Presentation

In this research, the data was the students pre-test and post-tests score. The collecting method used was administering test. After testing students pre-test and post-test, the researcher had gotten score of student's achievement in reading comprehension. See the Table 4.1.

Table 4.1 Students Score of Pre-test

No	Name	Score
1	AL	60
2	AM	36
3	AHN	48
4	AN	48
5	ADF	80
6	AW	52
7	AMH	76
8	CN	72
9	DO	72
10	ER	56
11	EPN.C	76
12	ENS	96
13	EE	44
14	FKW	56
15	FPEZA	52
16	GPR	60
17	HLN	64
18	INH	68
19	IKN	68
20	IU	64
21	IFM	76
22	KC	56
23	KSK	64
24	MS	60
25	NLK	72
26	NAC	68
27	NRJ	72
28	NH	64
29	SF	68
30	SK'A	52
31	SNA	72
32	SNA	68
33	Y FA	76
34	YL	56
35	ZLS	52

Based on the table 4.1 it is known that before the students being taught by using e-reading tools the mean of students' score is 63.54. It means that among 35 students who joined the test, there were 23 students who got score 60 and more. The percentage of success is:

$$\frac{23}{35} \times 100\% = 64\%$$

From the formula, the students who passed the pre-test were 64% while 34% students did not. It could be known that students' reading comprehension achievement is quite good. However, according to the students it's still needed to improve their reading comprehension using reading tools due to the fact that the standard score is low, 60. Therefore, the researcher tried to use e-reading tools to make them more comprehended.

Table 4.2 Students Score of Post-test

No	Name	Score
1	AL	60
2	AM	76
3	AHN	56
4	AN	52
5	ADF	80
6	AW	60
7	AMH	80
8	CN	84
9	DO	76
10	ER	76
11	EPN.C	76
12	ENS	96
13	EE	56
14	FKW	60
15	FPEZA	60

continued

Continuation

16	GPR	60
17	HLN	68
18	INH	60
19	IKN	84
20	IU	68
21	IFM	68
22	KC	68
23	KSK	64
24	MS	64
25	NLK	68
26	NAC	64
27	NRJ	80
28	NH	72
29	SF	68
30	SK'A	64
31	SNA	64
32	SNA	76
33	Y FA	80
34	YL	60
35	ZLS	68

Based on the table 4.2 it is known that after the students were taught by using e-reading tools the mean of students' score is 69.03. It means that among 35 students who joined the test there were 32 students who got score 60 and more. The percentage of success is:

$$\frac{32}{35} \times 100\% = 92\%$$

From the formula, the students who passed the pre-test were 92% while 8% students did not. It could be known that almost all students of C class passed the standard score that is 60.

2. Data Analysis

Data analysis was done to know the different score before and after test by searching the gain “d” (score after test and before test). After conducting the research, the researcher got the data as the result of distributing pre and post-test to thirty five students of C class of MA Terpadu Al Anwar Durenan Trenggalek. The next step is analyzing the data which had been collected through two kind of test.

To make easier in identifying Mean and T-test the researcher provided the Table of pre-test and post-test total score list. See the Table 4.3.

Table 4.3 Students’ Score of Pre-test and Post-test

No	Name	Pre-test (x)	Post-test (y)	D (y-x)	D (y-x) ²
1	AL	60	60	0	0
2	AM	36	76	40	1600
3	AHN	48	56	8	64
4	AN	48	52	4	16
5	ADF	80	80	0	0
6	AW	52	60	8	64
7	AMH	76	80	4	16
8	CN	72	84	12	144
9	DO	72	76	4	16
10	ER	56	76	20	400
11	EPN.C	76	76	0	0
12	ENS	96	96	0	0
13	EE	44	56	12	144
14	FKW	56	60	4	16
15	FPEZA	52	60	8	64
16	GPR	60	60	0	0
17	HLN	64	68	4	16
18	INH	68	60	8	64

continued

Continuation

19	IKN	68	84	16	256
20	IU	64	68	4	16
21	IFM	76	68	-8	-64
22	KC	56	68	12	144
23	KSK	64	64	0	0
24	MS	60	64	4	16
25	NLK	72	68	-4	-16
26	NAC	68	64	4	16
27	NRJ	72	80	8	64
28	NH	64	72	8	64
29	SF	68	68	0	0
30	SK'A	52	64	12	144
31	SNA	72	64	-8	-64
32	SNA	68	76	8	64
33	Y FA	76	80	4	16
34	YL	56	60	4	16
35	ZLS	52	68	16	256
		$\sum x = 2.224$	$\sum y = 2.416$	$\frac{\sum D}{216} =$	$\sum D^2 = 3552$

a. Identifying Mean

From the table above, the mean of students' score can be found by using the following formula:

$$MD = \frac{\sum D}{N} = \frac{216}{35} = 6.1714285714$$

Mean from X and Y :

$$MDx = \frac{\sum x}{N} = \frac{2224}{35} = 63.542857143$$

$$MDy = \frac{\sum y}{N} = \frac{2416}{35} = 69.028571429$$

The test items of both pre-test and post-test given by the researcher consisted of six stories. The text genres of four stories were recount while the rest were descriptive. The tests were in the form of multiple choice which consist of 25 items. There were 35 students as subjects of the research. The test was conducted by the researcher before and after implementing e-reading tools. The Mean of pre-test was 63.54 while post-test was 69.03, so the different Mean is 5.49.

b. Identifying T-score

Meanwhile, to find out t-score the computation was as follow:

$$\begin{aligned}
 t &= \frac{MD}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}} \\
 &= \frac{6.1714285714}{\sqrt{\frac{3552 - \frac{(216)^2}{35}}{35(35-1)}}} \\
 &= \frac{6.1714285714}{\sqrt{\frac{3552 - \frac{46656}{35}}{35(34)}}} \\
 &= \frac{6.1714285714}{\sqrt{\frac{3552 - 1333.0285714}{1190}}} \\
 &= \frac{6.1714285714}{\sqrt{\frac{2218.971429}{1190}}} \\
 &= \frac{6.1714285714}{\sqrt{1.8646818731}}
 \end{aligned}$$

$$= \frac{6.1714285714}{1.3655335489}$$

$$= 4.5194265468$$

c. Degree of Freedom

$$df = N - 1$$

$$= 35 - 1$$

$$= 34$$

B. Hypothesis Testing

After getting the result of t-test, the next step is testing the hypothesis. To make it easier see Table 4.4.

Table 4.4 the result of T-test

Sample	df (N-1)	T-count	T-table	Conclusion
35	34	4.5194	2.03224	H ₀ is rejected

Based on the Table 4.4 above, it's known that t_{count} was 4.5194. By referring to t_{table} with significance level 5% ($\alpha = 0,050$) and degree of freedom 34, the t_{table} was 2.03224.

In finding the difference of score, the researcher used t_{table} to be compared with t_{count} . If $t_{\text{count}} > t_{\text{table}}$, the H₀ is rejected. If H₀ is rejected, H_a is accepted. Before concluding whether H₀ is rejected or H_a is accepted, the identification is as follows:

1. Alternative Hypothesis (H_a) states that there is significant difference of using e-reading tools on student's achievements in reading comprehension instruction on the basis of their high interest.

2. Null Hypothesis (H_0) states that there is no significant difference of using e-reading tools on student's achievements in reading comprehension instruction on the basis of their low interest.

Referring to Table 4.4, it can be concluded that t_{count} is greater than t_{table} . Where $4.5194 > 2.03224$. Because t_{count} is greater than t_{table} , the alternative hypothesis (H_a) stated there is any significance difference between students' reading score before and after being taught by using e-reading was accepted and the null hypothesis (H_0) stated there is no significance difference between students' reading score before and after being taught by using e-reading was rejected.

As the conclusion because data showed that post-test is better than pre-test and the Mean of pre-test is lower than post-test, it is effective for teaching English especially reading comprehension by using e-reading tools.

C. Discussion

The objective of this research is to investigate the effectiveness of e-reading tools in reading comprehension instruction at Ten-grade students of MA Terpadu al Anwar in academic year of 2015/2016. In order to gain the objective of the research, the researcher conducted an experimental study with single subject design. Single subject experiment design is as a mean of using the same subject as control group and experimental group. So, the only one group selected as the sample was administered tests. The tests were pre-test and post-test.

The use of e-reading tools is effective if the data shows that $t_{\text{count}} > t_{\text{table}}$. In line with the statement, data analysis above shows that 4.5194 is greater than

2.03224. it means that H_0 is rejected or H_a is accepted. In addition, the mean in the pre-test was 63.54, while in the post-test was 69.03. Although it shows a slight difference between the two means, the data showed that the result of post-test was better than the pre-test one. Based on the result, it can be conclude that e-reading tools is effective to use in reading comprehension instruction at 10th grade students of MA Terpadu Al Anwar Durenan Trenggalek in academic years of 2015/2016.

The effectiveness of using e-reading tools in reading comprehension instruction at 10th grade students MA Terpadu Al Anwar Durenan Trenggalek in academic years of 2015/2016 shows that doing instruction process by using e-reading tools is better than using conventional one. It is because in the conventional instruction process, the students seem to be passive whether the teacher is the central of learning process. As the result, it may be difficult for the teacher to know how far her students understanding about the material served is. If the teacher is not experienced well in creating good communication, the students may be bored then. Finally, it will be more frustrating for the students if the teacher gives several materials in one time whereas there should be more times to discuss them.

Those conditions surely make students difficult to understand the material served. Therefore, most of students in English reading class get unsatisfied score especially in visualizing the text to relate it with their experiences. However, to engage with a text, students need to conceptualize, visualize, and understanding words or vocabularies as well. Biancarosa and Griffiths (2012:143) believe that e-

reading has shown promise in developing early reading skills and in giving readers with visual impairments or language based disabilities access to texts.

Based on the result of conducting research, e-reading tools is effective toward students' achievement. The class condition shows that: it could be more active, the instruction process is more alive and effective, and the students who have disabilities greatly get benefit from e-reading tools.

First, the class could be more active. Students are willingly to participate without any forces from the researcher. The students are willingly to ask and argues by the way. Further, Korat (2010: 24–31) has found that presenting students' books as digital text with dictionaries or activities can lead to improvements in phonological awareness, word- reading skills, and vocabulary knowledge. When the students read with no doubt in lack of vocabularies, they can enjoy their reading comprehension instruction process.

Next, the instruction process is more alive and effective. It means that the students can surely catch the materials and relate it with their experiences in their environment, in real life. It is the most crucial thing of our national instructional purpose. By correlating or relating the material with real life, students not only formally understand it but also truly remember it. It means that the instruction process is more productive and be able to strengthen the learning concept of students because it refers to constructivism approach. In line with philosophy of constructivism by Piaget, students are aimed to learn by doing not learning by memorizing. So, the material may be unforgettable.

Another one is that students who have disabilities greatly get benefit from e-reading tools. The students then understand and know how to visualize and characterize the text intrinsic. Even though they do not use images, videos, or other text visualization tools in their reading text, because they can capture and imagine messages served in the text properly. They just enjoy the selected electric text because e-reading brings differences in the way they read during using the trade book. Duke and Pearson (2002:11) there is an old saying that a picture is worth a thousand words. When it comes to comprehension, this saying might be paraphrased, “a visual display helps readers understand, organize, and remember some of those thousand words.”

The result of the research was in line with theory about e-reading. Lessen (2011) declare that From the perspectives of children, e-readers give books a “cool” and modern image. With the use of e-readers, reading becomes more appealing for children and teenagers. Therefore, the use of this technical device will surely play a major role in tomorrow’s reading.

Thus, the above findings imply that different treatment of one’s reading to use tools has an impact on his or her perceived usefulness of the instruction process. Instructional process using e-reading tools is also found to be a significant influential factor of e-learning acceptance. The design of e-reading tools seems to have a positive effect on the acceptance of students in reading comprehension instruction process, teaching and learning mode at the Ten-grade students of MA Terpadu al Anwar in academic year of 2015/2016.